Title (en)
Method for discrimination of product units and apparatus therefor

Title (de)
Verfahren und Vorrichtung zur Unterscheidung von Produkteinheiten

Title (fr)
Méthode et appareil pour discriminer des produits unitaires

Publication
EP 0965393 A3 20010829 (EN)

Application
EP 99111523 A 19990614

Priority
US 10028698 A 19980619

Abstract (en)
[origin: EP0965393A2] A conveying system for multiple product units conveyed on two parallel conveyors past a sensing section. The sensing section includes multiple line scan sensors which each receive input from both conveyors and a calibration standard object in a thin line scan across the conveyors. Optics include an objective lens and a 1X relay lens divided in two and including a prism between halves. The exit pupil of the objective lens is imaged onto the entrance pupil of the 1X relay lens where a slit is positioned to define an image of the thin portion of the product unit in the sensing area. The optics spread the spectrum perpendicularly to the spatial direction to define a grid received by a CCD camera. The CCD camera and associated CPU operate on the data to bin attenuated pixels, train for filtering by spectral range and employ that training to subsequently train for the establishment of algorithms which sense differences in the filter data between product units of different attributes. Various algorithms are thus prepared for determining color, maturity, blemishes, size and the like. <IMAGE>

IPC 1-7
B07C 5/342; G01N 21/89

IPC 8 full level
G01N 21/89 (2006.01)

CPC (source: EP US)
G01N 21/8901 (2013.01 - EP US)

Citation (search report)
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Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
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DOCDB simple family (application)
EP 99111523 A 19990614; AU 3574499 A 19990618; DE 69921021 T 19990614; ES 99111523 T 19990614; US 10028698 A 19980619; US 76668001 A 20010118